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May 24, 2016

Docket Control Arizona Corporation Commission 1200 W. Washington Phoenix, AZ 85007

RE:

Arizona Public Service Company 2010 Test Year Rate Case

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Docket No. E-01345A-11-0224

Pursuant to Decision No. 73183 Settlement Agreement Section 18.2, dated May 24, 2012, Arizona Public Service Company ("APS") was ordered as follows:

APS shall report to the Commission identifying the extent of the challenges regarding workforce planning, the specific actions that APS is taking to address the issue, and the progress APS is making toward meeting those goals.

Attached please find the APS Workforce Planning Report as required above. If you have any questions regarding this information, please contact Stefanie Layton at (602)250-4541.

Sincerely,

Kerri A. Carnes

KC/am

cc: Thomas Broderick

Arizona Corporation Commission

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# **ARIZONA PUBLIC SERVICE COMPANY**

**Annual Workforce Planning Compliance Report Decision No. 73183** 

Docket No. E-01345A-11-0224

May 24, 2016



## **Table of Contents**

Executive Summary	1
Workforce Analytics	1
Workforce Pipelines	4
Apprenticeship Program	6
Hiring Talent	7
Closing	7

## **Executive Summary**

Arizona Public Service ("APS" or "the Company") remains committed to ensuring our workforce meets the needs of our customers- just as we have for the past 130 years. In order to maintain such a highly skilled and qualified workforce, we must engage and retain our current employees while looking to the future by building and developing vibrant talent pipelines to meet future hiring needs. Our workforce planning efforts are centered on understanding our workforce analytics, developing future workforce pipelines, and hiring the right talent at the right time.

## **Workforce Analytics**

APS calculates current and predictive workforce analytics to provide an analytical framework for meaningful dialogue and action-based planning for the future. Our analytics include data surrounding our demographics (age), retirement eligibility, historic retirements and forecasted attrition.

For many years, there has been focus on the long-tenured and aged workforce within APS (and the national utility industry as a whole). Each year, employee retirements have increased year-over-year. While the impact of this attrition remains, our predictive workforce modeling projects that 2016 will be the peak year for overall retirements at APS. These projections are in line with what we are seeing on the national level based on the Center for Energy Workforce Development's (CEWD) 2015 Gaps in the Energy Workforce Survey. The annual CEWD survey includes over 54 utilities and represents over 75% of all US Electric and Gas employees and shows that overall the utility workforce is getting younger.

When we look specifically at our Journeyman Electrician, Journeyman Lineman, Auxiliary/Control Operator, and E&I Technician positions, we find that 20.4% were eligible to retire year-end 2015; down from 21.6% in year-end 2014. While 20.4% are eligible, we are forecasting continued trailing actual retirements with 4% in 2016, 3% in 2017 and 2018, and 2% in 2019 and 2020. Below are graphs offering more demographic detail within these job titles.

Headcount and Age Summary (as of 12/31/15)

Job Family	Job Title	Headcount	Age Mean	Age Median		
Electrician Journeyman	Electrician	94	48	47		
		94	48	47		
Lineman Journeyman	Lineman Journeyman	166	44	44		
Lineman Journeyman	Lineman Hotstick	17	49	47		
Lineman Journeyman	Crew Foreman Lineman 1-6	4	41	41		
Lineman Journeyman	Crew Foreman Lineman TH	51	52	54		
Lineman Journeyman	Crew Foreman TH	21	53	53		
Lineman Journeyman	Crew Frmn Hstk TH	5	54	52		
Lineman Journeyman	Crew Foreman Fab TH	0	-	-		
Lineman Journeyman	Crew Foreman 1-6	1	56	56		
Lineman Journeyman	eman Journeyman Crew Frmn Hstk 1-6		38	38		
		266	47	47		
Operator Power Plant	Auxiliary Operator	101	47	50		
Operator Power Plant	r Plant Auxiliary Operator GF 1		56	56		
Operator Power Plant	Control Operator	65	49	52		
		167	48	50		
Technician E&I	E&I Journeyman	67	48	49		
		67	48	49		
	TOTAL	594	48	48		

## Retirement Eligibility - Pension & Benefits (as of 12/31/15)

Job Family	Job Title	# Eligible	% Eligible		
Electrician Journeyman	Electrician	15	16.0%		
		15	16.0%		
Lineman Journeyman	Lineman Journeyman	16	9.6%		
Lineman Journeyman	Lineman Hotstick	4	23.5%		
Lineman Journeyman	Crew Foreman Lineman 1-6	0	0.0%		
Lineman Journeyman	Crew Foreman Lineman TH	17	33.3%		
Lineman Journeyman	Crew Foreman TH	8	38.1%		
Lineman Journeyman	Crew Frmn Hstk TH	2	40.0%		
Lineman Journeyman	Crew Foreman Fab TH	0	0.0%		
Lineman Journeyman	Crew Foreman 1-6	1	100.0%		
Lineman Journeyman	Crew Frmn Hstk 1-6	0	0.0%		
		48	18.0%		
Operator Power Plant	Auxiliary Operator	22	21.8%		
Operator Power Plant	Auxiliary Operator GF	1	100.0%		
Operator Power Plant	Control Operator	23	35.4%		
		46	27.5%		
Technician E&I	E&I Journeyman	12	17.9%		
		12	17.9%		
	TOTAL	121	20.4%		

#### Historic Retirement

Job Family	Job Title	2012	2013	2014	2015
Electrician Journeyman	Electrician	5	1	3	2
		5	1	3	2
Lineman Journeyman	Lineman Journeyman	1	2	4	6
Lineman Journeyman	Lineman Hotstick	0	0	0	0
Lineman Journeyman	Crew Foreman Lineman 1-6	0	0	0	0
Lineman Journeyman	Crew Foreman Lineman TH	2	1	3	2
Lineman Journeyman	Crew Foreman TH	0	1	0	0
Lineman Journeyman	Crew Frmn Hstk TH	0	1	. 1	0
Lineman Journeyman	Crew Foreman Fab TH	1	0	0	0
Lineman Journeyman	Crew Foreman 1-6	0	0	0	0
Lineman Journeyman	neman Journeyman Crew Frmn Hstk 1-6		0	0	0
		4	5	8	8
Operator Power Plant	Auxiliary Operator	0	8	5	8
Operator Power Plant	Auxiliary Operator GF	0	0	0	0
Operator Power Plant	Control Operator	8	2	3	4
		8	10	8	12
Technician E&I	E&I Journeyman	3	5	5	4
		3	5	5	4
T	OTAL	20	21	24	26

## **Retirement Forecast**

		2016		2017		2018		2019		2020	
Job Family	Job Title	#	%	#	%	#	%	#	%	#	%
Electrician Journeyman	Electrician	3	3%	2	2%	2	2%	1	1%	1	1%
		3	3%	2	2%	2	2%	1	1%	1	1%
Lineman Joumeyman	Lineman Journeyman	6	4%	ვ	2%	3	2%	თ	2%	3	2%
Lineman Journeyman	Lineman Hotstick	0	0%	1	6%	1	6%	0	0%	1	6%
Lineman Journeyman	Crew Foreman Lineman 1-6	0	0%	0	0%	0	0%	0	0%	0	0%
Lineman Journeyman	Crew Foreman Lineman TH	1	4%	2	4%	1	1/51	2	4%	1	2%
Lineman Journeyman	Crew Foreman TH	0	0%	1	5%	1	5%	1	5%	1	5%
Lineman Journeyman	Crew Frmn Hstk TH	0	0%	0	0%	0	0%	0	0%	0	0%
Lineman Journeyman	Crew Foreman Fab TH	0	0%	0	0%	0	0%	0	0%	0	0%
Lineman Journeyman	Crew Foreman 1-6	0	0%	0	0%	0	0%	0	0%	0	0%
Lineman Journeyman	Crew Frmn Hstk 1-6	0	0%	0	0%	0	0%	0	0%	0	0%
		8	3%	7	3%	6	2%	6	2%	6	2%
Operator Power Plant	Auxiliary Operator	8	8%	5	5%	4	4%	4	4%	4	4%
Operator Power Plant	Auxiliary Operator GF	0	0%	0	0%	0	0%	0	0%	0	0%
Operator Power Plant	Control Operator	4	6%	3	5%	3	5%	2	3%	2	3%
		12	7%	8	5%	7	4%	6	4%	6	4%
Technician E&I	E&I Journeyman	3	4%	2	3%	1	1%	1	1%	1	1%
		3	4%	2	3%	1	1%	1	1%	1	1%
TOTA	\L	26	4%	19	3%	16	3%	14	2%	14	2%

<sup>\*</sup>Percentage is based on current headcount

## **Workforce Pipelines**

For many years, APS has been focused on our aging workforce and managing the attrition levels that result. While the increasing levels of attrition have continued to be a focus for the utility industry as a whole, APS has successfully managed this challenge through the programs that we have implemented. APS drives this process through collaboration with local partnerships and other electric utilities. These programs and partnerships have successfully allowed APS to reduce attrition impacts in a given year while effectively contributing to the development of our current employees. With 2016 estimated to be the peak year in retirements for the Company, we are confident that with our historical success and increased efforts we will continue to actively manage this challenge.

It is important for us to understand our current and forecasted workforce analytics, and even more important to plan for the future and ensure we have a skilled workforce ready to hire. The electrical utility industry offers not only jobs, but long-term careers. As a company, we work hard to ensure potential future employees recognize this and consider us as a career option. It is important to remember that much of the workforce of our future are currently students in the schools of our communities.

In order to be successful in many industries (including the electric utility industry), our students need to have strong foundational anchoring in the disciplines of STEM (science, technology, engineering and math). To promote this type of education, the APS Foundation invests in programs that enhance academic achievement in this area. A majority of the funding is designated to teachers, who are broadly credited as the single-most important factor in the K-12 educational system. The APS Foundation targets projects that help educators increase content knowledge in STEM subjects as well as the ability to transfer this knowledge effectively to students. Since 1981, the APS Foundation has invested more than \$38 million to worthy projects throughout Arizona.

We also recognize the importance of bringing innovative thinking within the education and workforce development arena to action. One example of this is the Western Maricopa Education Center ("West-MEC"), in major partnership with APS, Estrella Mountain Community College ("EMCC") and the City of Buckeye, recently celebrated the grand opening of its new Southwest Campus.

The campus' location in Buckeye is well-positioned to accommodate the workforce development needs of lead industry partners, APS and its Palo Verde Nuclear Generating Station, and two of the West Valley's leading educational and career development partners, West-MEC and EMCC. The Southwest campus will serve its

first group of students in the fall of 2016, launching inaugural programs in Energy and Industrial Technology, Information Technology & Cyber Security, General Construction, as well as a few others related to industries outside of the utility industry.

The genesis of this southwest campus was the curriculum and pathways developed several years ago in a unique partnership between West-MEC, APS, Palo Verde and EMCC. The partnership addressed the critical energy workforce shortage caused by attrition and an aging workforce. EMCC responded by developing and offering academic pathways through the "Get Into Energy" program with industry certifications and degrees in Power Plant Technology.

The Southwest campus features a nearly 42,000-square-foot, two-story Sustainable Energy building, with electrical, mechanical, instrumentation & control labs; as well as an industry flow loop lab & shop. Curriculum taught in this building will prepare students for entry-level technician positions for the energy and manufacturing industries. It also allows students to earn up to 30 dual enrollment credits toward energy and manufacturing- related associate of applied science degrees offered at EMCC, one of the ten colleges in the Maricopa County Community College District ("MCCCD").

Uniquely, EMCC/MCCCD will lease office space at the West-MEC southwest campus to offer high school students immediate access to post-secondary educational pathways. However, the campus is not just open to high school students as all community members will have access to EMCC enrollment, testing and basic campus services at the Buckeye facility.

The innovation and foresight that went into developing the programs was acknowledged by the Western Maricopa Coalition as the 2015 winner of the Best of the West Excellence in Innovation Award. Upon completion, the entire campus will feature approximately 172,000 square feet of buildings and learning situated on a 17-acre campus. We are proud of our involvement with this program and look forward to taking an active role in ensuring the students enrolled are skilled in the foundational coursework offered.

Ensuring strategic workforce development activities are aligned and producing a local workforce pool is critical to our future. APS Foundation giving and partnership with West-MEC and EMCC are just a couple of workforce development examples currently underway. We are proud of our efforts and remain focused on ensuring the future workforce is ready.

## **Apprenticeship Program**

APS supports multiple apprenticeship programs.

APS's accredited Transmissions and Distribution Pre-Apprenticeship Program is designed to prepare and develop individuals into highly skilled employees within the energy industry. This program is an entry point into a career which offers attractive financial incentives, continuous training and development.

During the 12 to 24 month program, Pre-Apprentices receive statewide on-the-job skills training, along with trade related classroom curriculum within their selected specialty. Upon successful completion of the Pre-Apprentice program, graduates are accepted into APS's award winning Journeyman Apprenticeship Program. The four year APS Apprenticeship Program is a State of Arizona indentured program. The Apprentice Program provides additional academic, workplace, technical and personal effectiveness competency development. Graduates of this program are well positioned to continue their careers as Journey Workers within APS.

Individuals in the Pre-Apprentice Program assist APS's crews with day to day tasks and rotate to various areas within the organization to gain the diversity and depth of experience necessary to be successful. APS's Pre-Apprenticeship Program offers the opportunity to develop a specialty in one of the following areas:

- Electrical Transmission and Distribution Operations (Line Worker and Electrician)
- Polyphase Meter Repair

The Palo Verde Nuclear Power Plant Maintenance Apprenticeship Program is a registered apprenticeship program which establishes guidelines for recruitment, selection, condition of employment, training and monitoring performance, work assignments, salary reviews and promotions for the Maintenance Apprentices in accordance with the Arizona Apprenticeship Standards System Policies and Procedures. This includes a partnership with Estrella Mountain Community College.

Finally, The Fossil Joint Apprenticeship Committee (FJAC) program, a joint agreement between Cholla, Four Corners and the International Brotherhood of Electrical Workers, offers apprenticeships in automotive, Electrical &Instrumentation, Utilities, Welder Journeyman and Machinist Journeyman. The program was established in 2000 to meet the needs of fossil-fueled power plants in the APS system. The apprenticeship program takes approximately 3.5 years and incorporates on-the-job learning combined with related instruction. The Apprentice

training standards were developed in accordance with the basic standards recommended by the U.S. Dept. of Labor, Office of Apprenticeship.

## **Hiring Talent**

As a company, we continue to infuse our workforce with skills from entry-level hires, employee advancement from promotion, and experienced hires. Overall our workforce is remaining flat with a 2015 year-end enterprise headcount of 6,352 compared to year-end 2014 headcount of 6,320. As we look at the next few years, we expect a relatively flat headcount as we continue to leverage workforce efficiency opportunities and look to the future.

Related to craft hiring, 2015 brought a significant increase in outside experienced Journeyman Lineman hires. Traditionally, we almost exclusively hire and train apprentices who progress to our Journeyman ranks. Hiring experienced Journeyman Lineman allowed APS to backfill vacancies due to promotions and retirement. As we move forward, we will continue to evaluate this blended model and adjust as necessary to meet the needs of the business and our customers.

## Closing

Overall, the future of the APS workforce looks bright. Enterprise-wide retirements are predicted to peak in 2016 and we are proactively tracking and planning in the workforce risk space. As the industry continues to evolve, we are poised to ensure we have a workforce with the skills and desire to meet the needs of our customers.